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**UTILITY PATENT APPLICATION TRANSMITTAL  
(Large Entity)***(Only for new nonprovisional applications under 37 CFR 1.53(b))*Docket No.  
**YOR920000503US1/IBM-0010**Total Pages in this Submission  
**66****TO THE ASSISTANT COMMISSIONER FOR PATENTS**Box Patent Application  
Washington, D.C. 20231

Transmitted herewith for filing under 35 U.S.C. 111(a) and 37 C.F.R. 1.53(b) is a new utility patent application for an invention entitled:

**Method and System for Dynamically Providing Materials and Technology Information**

and invented by:

Robert D. Hayes  
Edward Kobeda  
John S. Maresca  
Michael J. WhitneyIf a **CONTINUATION APPLICATION**, check appropriate box and supply the requisite information:☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.: \_\_\_\_\_

Which is a:

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Which is a:

☐ Continuation ☐ Divisional ☐ Continuation-in-part (CIP) of prior application No.: \_\_\_\_\_

Enclosed are:

**Application Elements**

1. ☒ Filing fee as calculated and transmitted as described below
2. ☒ Specification having 38 pages and including the following:
  - a. ☒ Descriptive Title of the Invention
  - b. ☐ Cross References to Related Applications *(if applicable)*
  - c. ☐ Statement Regarding Federally-sponsored Research/Development *(if applicable)*
  - d. ☐ Reference to Microfiche Appendix *(if applicable)*
  - e. ☒ Background of the Invention
  - f. ☒ Brief Summary of the Invention
  - g. ☒ Brief Description of the Drawings *(if drawings filed)*
  - h. ☒ Detailed Description
  - i. ☒ Claim(s) as Classified Below
  - j. ☒ Abstract of the Disclosure

**UTILITY PATENT APPLICATION TRANSMITTAL**  
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**Application Elements (Continued)**

3. ☒ Drawing(s) *(when necessary as prescribed by 35 USC 113)*

- a. ☐ Formal                      Number of Sheets \_\_\_\_\_
- b. ☒ Informal                      Number of Sheets 8

4. ☒ Oath or Declaration

- a. ☒ Newly executed *(original or copy)*                      ☐ Unexecuted
- b. ☐ Copy from a prior application (37 CFR 1.63(d)) *(for continuation/divisional application only)*
- c. ☒ With Power of Attorney                      ☐ Without Power of Attorney
- d. ☐ DELETION OF INVENTOR(S)  
Signed statement attached deleting inventor(s) named in the prior application,  
see 37 C.F.R. 1.63(d)(2) and 1.33(b).

5. ☐ Incorporation By Reference *(usable if Box 4b is checked)*

The entire disclosure of the prior application, from which a copy of the oath or declaration is supplied under Box 4b, is considered as being part of the disclosure of the accompanying application and is hereby incorporated by reference therein.

6. ☐ Computer Program in Microfiche *(Appendix)*

7. ☐ Nucleotide and/or Amino Acid Sequence Submission *(if applicable, all must be included)*

- a. ☐ Paper Copy
- b. ☐ Computer Readable Copy *(identical to computer copy)*
- c. ☐ Statement Verifying Identical Paper and Computer Readable Copy

**Accompanying Application Parts**

8. ☒ Assignment Papers *(cover sheet & document(s))*

9. ☒ 37 CFR 3.73(B) Statement *(when there is an assignee)*

10. ☐ English Translation Document *(if applicable)*

11. ☒ Information Disclosure Statement/PTO-1449                      ☒ Copies of IDS Citations

12. ☐ Preliminary Amendment

13. ☒ Acknowledgment postcard

14. ☒ Certificate of Mailing

☐ First Class                      ☒ Express Mail *(Specify Label No.):* EL631524503US

**UTILITY PATENT APPLICATION TRANSMITTAL**  
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*(Only for new nonprovisional applications under 37 CFR 1.53(b))*

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66

**Accompanying Application Parts (Continued)**

15. ☐ Certified Copy of Priority Document(s) *(if foreign priority is claimed)*

16. ☐ Additional Enclosures *(please identify below):*

**Request That Application Not Be Published Pursuant To 35 U.S.C. 122(b)(2)**

17. ☐ Pursuant to 35 U.S.C. 122(b)(2), Applicant hereby requests that this patent application not be published pursuant to 35 U.S.C. 122(b)(1). Applicant hereby certifies that the invention disclosed in this application has not and will not be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication of applications 18 months after filing of the application.

**Warning**

***An applicant who makes a request not to publish, but who subsequently files in a foreign country or under a multilateral international agreement specified in 35 U.S.C. 122(b)(2)(B)(i), must notify the Director of such filing not later than 45 days after the date of the filing of such foreign or international application. A failure of the applicant to provide such notice within the prescribed period shall result in the application being regarded as abandoned, unless it is shown to the satisfaction of the Director that the delay in submitting the notice was unintentional.***

# UTILITY PATENT APPLICATION TRANSMITTAL (Large Entity)

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Docket No.  
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66

## Fee Calculation and Transmittal

### CLAIMS AS FILED

For	#Filed	#Allowed	#Extra	Rate	Fee
Total Claims	83	- 20 =	63	x \$18.00	\$1,134.00
Indep. Claims	9	- 3 =	6	x \$80.00	\$480.00
Multiple Dependent Claims (check if applicable) <input type="checkbox"/>					\$0.00
BASIC FEE					\$710.00
OTHER FEE (specify purpose)					\$0.00
TOTAL FILING FEE					\$2,324.00

- ☐ A check in the amount of \_\_\_\_\_ to cover the filing fee is enclosed.
- ☒ The Commissioner is hereby authorized to charge and credit Deposit Account No. **50-0510** as described below. A duplicate copy of this sheet is enclosed.
- ☒ Charge the amount of **\$2,324.00** as filing fee.
  - ☒ Credit any overpayment.
  - ☒ Charge any additional filing fees required under 37 C.F.R. 1.16 and 1.17.
  - ☐ Charge the issue fee set in 37 C.F.R. 1.18 at the mailing of the Notice of Allowance, pursuant to 37 C.F.R. 1.311(b).

Marisa J. Dubuc  
Signature

Dated: November 9, 2000

Marisa J. Dubuc  
Registration No. 46,673



**23413**

CC:

PATENT TRADEMARK OFFICE

APPLICATION  
FOR  
UNITED STATES LETTERS PATENT

APPLICANT NAME: Hayes, et al  
TITLE: Method and System for Dynamically Providing  
Materials and Technology Information  
DOCKET NO. YOR920000503US1/IBM-0010

INTERNATIONAL BUSINESS MACHINES CORPORATION

CERTIFICATE OF MAILING UNDER 37 CFR 1.10

I hereby certify that, on the date shown below, this correspondence  
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on November 9, 2000

Barbara Davidson  
Name of person mailing paper

  
Signature

11/09/2000  
Date

# METHOD AND SYSTEM FOR DYNAMICALLY PROVIDING MATERIALS AND TECHNOLOGY INFORMATION

## BACKGROUND

5 This invention relates generally to a computer-based method and system, and more particularly, this invention relates to a computer-based method and system for dynamically providing materials and technology information to authorized system users. During the planning phase for a new product, development engineers seek out information  
10 pertaining to production materials and related technology that exist in the market and that will produce optimum economic and structural benefits for their product. In a typical organization, information regarding product materials and technology is often gathered by these  
15 development engineers in a haphazard fashion through the use of various supplier catalogs, telephone inquiries, and by word-of-mouth. As can be expected, some suppliers and some engineers may be less effective in gathering this information than others, often leading to poor decisions and  
20 other inefficiencies based on incomplete or out-of-date information. Procurement engineers, who are technical experts in a particular commodity, are generally available to help guide development engineers through these selection decisions. However, procurement engineers are often unable  
25 to help with all technology selection decisions due to limited resources.

A process is therefore required that can provide a means of gathering materials and technology information from a variety of sources and that allows continuous, 24-hour

access for authorized persons around the globe.

#### BRIEF SUMMARY

5 An exemplary embodiment of the invention relates to a computer-based method and system for gathering materials and technology information from internal as well as external sources, integrating the information into a format accessible to disparate systems, storing the information in a centralized system, updating the stored information as needed, and providing continuous access to the information for authorized users of the system. The development toolkit network (DTN) of the present invention is a set of applications designed to facilitate the gathering of technical information about supplier product offerings and new technology, and to disseminate that information to an organization's development engineers around the globe. In the quickly changing electronics industry, this can mean disseminating information very early, such as, while products are still in the development stage. The DTN tool is designed to assist development engineers in materials and technology selection, by providing a graphical, easy-to-navigate set of information in real-time.

#### BRIEF DESCRIPTION OF THE DRAWINGS

25 Referring now to the drawings wherein like elements are numbered alike in the several FIGURES:

FIG. 1 is a block diagram of a portion of the system that includes a plurality of workstations and servers on which the DTN tool is implemented;

30 FIG. 2 is a diagram illustrating the flow of technology

information among development engineers, procurement engineers, and suppliers utilizing the DTN tool;

FIG. 3 is a flowchart describing how a development engineer utilizing the DTN tool acquires supplier and technology information;

FIG. 4 is a sample technology selector screen window provided by the DTN front-end database;

FIG. 5 is a sample technology roadmap screen window provided by the DTN engineering notebook database and illustrates backplane connector technology items;

FIG. 6 is a sample supplier technology comparison screen window provided via the DTN supplier survey database and illustrates a technology family in the backplane connector technology;

FIG. 7 is a sample technology survey response screen window for a chosen technology family in the backplane connector technology;

FIG. 8 is a flowchart describing how a supplier utilizing the DTN tool submits a technology survey; and

FIG. 9 is a flowchart describing how a procurement engineer provides new technology information to an organization via the DTN tool.

#### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

In an exemplary embodiment, the DTN application is implemented through a networked system such as that shown in FIG. 1. Although not necessary to realize the advantages of the present invention, system 100 may be part of a wide area network in which different geographical locations are interconnected, either by high-speed data lines or by radio



links, interconnecting hundreds of workstations at widely disparate locations. In the simplified diagram of FIG. 1, system 100 includes an organization 102 comprising a web server 104, an applications server 106, and a database server 108 that are located on a host system 110 and connected through a network 112 to workstations 114. The term "organization" refers to the system implementing the development toolkit network (DTN) applications. Network 112 may comprise a LAN, a WAN, or other network configuration known in the art. Further, network 112 may include wireless connections, radio-based communications, telephony-based communications, and other network-based communications. For purposes of illustration, however, network 112 is a LAN. A firewall 122 limits access to organization 102 to those network users possessing proper access permissions.

Host system 110 is running suitable web server software designed to accommodate various forms of communications, and which allows information in data storage devices 118 and 120 to be published on a web site. For purposes of illustration, host system 110 is running Lotus Domino (TM) as its server software. Applications server 106 executes the DTN tool, among other applications utilized by organization 102. Applications server 106 is also running a groupware application such as Lotus Notes (TM) which allows remote users to access information through its replication capabilities, provides e-mail services, and supports a secure extranet architecture.

Data storage devices 118 and 120 reside within intranet 112 and may each comprise any form of mass storage device configured to read and write database type data maintained

in a file store (e.g., a magnetic disk data storage device). Data storage devices 118 and 120 are logically addressable as consolidated data sources across a distributed environment such as a network system 100. The  
5 implementation of local and wide-area database management systems to achieve the functionality of data storage devices 118 and 120 will be readily understood by those skilled in the art. Information stored in data storage devices 118 and 120 is retrieved and manipulated via database server 108.

10 Data storage device 118 provides a repository for a variety of information and stores the front end and engineering notebook databases of the DTN tool. A second data storage device 120 houses the technology surveyss database of the DTN tool. All three features are further  
15 described herein.

System 150 comprises a web server 152 that connects workstations 154 to an intranet 156 and to the Internet. Firewall 158 provides security and protection against  
20 unauthorized access to internal network information from outside sources. Each of workstations 154 may access web server 152 via internal web browsers (not shown) located on workstations 154. A data storage device 160 is coupled to server 152. A replica 128 of the technology surveyss  
25 database from data storage device 120 is accessible to system 150 via extranet 140. System 150 is typically an existing or prospective supplier of organization 102.

The DTN tool is a set of e-business applications that provides an environment for storing the supplier knowledge that procurement engineers have, and allows constant access  
30 to development engineers around the world. Suppliers also

have 24-hour access to submit supplier surveys to educate the organization about new technology offerings and changes to existing technology. All suppliers have the same access to the tool, and this competitive situation provides an incentive for them to keep their information up-to-date.

Procurement engineers of organization 102 have access to the DTN tool both in their office and while traveling by using a replica of the Lotus Notes (TM) databases from data storage devices 118 and 120. Whenever new information is discovered, the engineer can edit the information via the DTN tool, usually stored in a web browser program, and replicate it at his/her earliest convenience using dial-up access to organization 102. Additionally, web server 104 may be programmed to systematically conduct scheduled replications, whereby database replicas are temporarily stored in a queue awaiting replication (not shown). Replications may be scheduled by organization 102 as frequently as desired in order to provide access to the most current, up-to-date information. Procurement engineering also uses the DTN tool to educate development engineers about the organization's strategic direction through the use of the technology roadmaps tool (described further in FIG. 5), and may provide markings designating "preferred" technologies and suppliers (further described in FIG. 6). The development engineer has access to DTN via the organization's corporate internet, or intranet 112, using a standard web browser (not shown).

The goal of the DTN tool is to provide access to the most complete, up-to-date information regarding product offerings for authorized users, facilitating a better

understanding of market and technology trends. The DTN tool achieves this through its three interlinked subcomponents: the DTN front end feature, the engineering notebook feature, and technology surveys feature.

5           The DTN tool includes three separate Lotus Notes (TM) databases that reside on data storage devices 118 and 120, and acts as a gateway into many other forms of information. The DTN front end and engineering notebook databases reside in data storage device 118, while the technology surveys  
10       database resides in data storage device 120. Both data storage devices 118 and 120 reside within the organization's intranet 112. Since they are within the intranet, they are accessible to all of the organization's employees who have proper access permissions. These databases can be  
15       replicated to portable devices, such as laptop computer 130 of FIG. 1, allowing access to information while traveling. The technology survey feature of the DTN tool provides two replicas of the same database. As stated earlier, the first replica of the technology survey database resides in data  
20       storage device 120 and is inside the organization's firewall 122, on intranet 112, for access to the organization's employees. The other replica 128 is accessible through the organization's extranet 140 to authorized suppliers. Many replicas may be necessary and will depend upon the number of  
25       authorized systems or suppliers requiring access to organization's 102 information. Administration of security and access is controlled through a gateway application capable of integrating disparate data and applications in a secure fashion, such as IBM's Electronic Supply Chain (ESI)  
30       Interlock tool, which is described in U.S. Patent

Application Ser. No. 09/658,257, filed on September 8, 2000, and is incorporated herein by reference in its entirety.

A framework for the flow of information associated with the DTN tool is described from the point of view of three types of system users: development engineering personnel (also referred to as 'user'); procurement engineering personnel, the technical experts who provide analysis and comments on materials and technology; and supplier representatives, who provide the technical raw data. This flow of information is systematically integrated and organized via the DTN tool as shown generally in FIG. 2.

The flow of information from the development engineering point of view is described in FIG. 3. A development engineer ('user') accesses the DTN tool because of a need for supplier and/or technology information at step 302. For example, a new system under development may require backplane connector technology. The user accesses the organization's intranet web page at step 304, selects the DTN tool icon which, in turn, causes the DTN tool to query the front end database resulting in the technology selector window 400 of FIG. 4 to be displayed at step 306. The user then selects the connectors option 402 from the technology selector window 400 at step 308. The technology selector window is designed from a user's point of view, to make the selection process visual and simple. The user then clicks on 'Backplane' 404 and flow proceeds to step 310 where the user is transferred over to the DTN engineering notebook's technology roadmap database located in data storage device 118. FIG. 5 illustrates a typical technology roadmap window 500, a component of the part and supplier

selection process. The technology roadmap feature of the DTN tool both provides users with important summary information about a specific technology as well as information concerning "preferred" technologies for future consideration in order to encourage common technology selection among the different users of organization 102.

Using the technology roadmap of the DTN tool, a development engineer compares the listed technologies in terms of performance (density and speed); relative age in the industry (mature versus new); and recommendation of procurement engineering (preferred families) as shown generally in FIG. 5. This information is gathered from a variety of sources and is described further herein. Using this information, a user will click on their chosen technology family 502 from the technology roadmap window 500 at step 312. The technology survey comparison window 600 of FIG. 6 appears at step 314. The user has now left the DTN engineering notebook database in data storage device 118 and has entered the DTN technology survey database in data storage device 120, although the transition was transparent to the user. The technology survey comparison window 600 of FIG. 6 shows back-to-back comparisons of the chosen technology as available from each supplier that has filled out a technology survey entry. The information presented on technology survey comparison window 600 includes important performance parameters 602 for the particular technology, in compact form allowing for comparisons of the supplier capabilities to be made. Also shown in FIG. 6 is input from procurement engineering personnel in the form of check-marks 604 which appear next to designated, or preferred,

suppliers. This allows users to determine the opinions of the procurement experts who work with these suppliers and rate their prices and performance criteria. Check marks 604 can be displayed in a different color to further distinguish preferred suppliers and/or preferred technology families.

A user desiring to learn more information about a particular item or component for a given supplier can click on the appropriate line entry from window 600. For example, a user desiring additional information selects line 606 at step 316. The technology survey response window 700 of FIG. 7 is then displayed at step 318 which details the complete supplier technology survey response for the selected line 606. The survey contains responses to a set of technical questions that are common and easily comparable between suppliers and is further described in FIG. 8 below. The question set will necessarily vary from technology to technology. Some of the items on the technology survey response window 700 provide URLs 702 linking a user to supplier web sites and further sources of information. The user can click on the desired link 702 at step 320. The information provided by linking to the supplier's URL may be in the form of datasheets or qualification data (step 322). At any time, the user may use the "Back" button on the browser window to view different suppliers, families, or technologies (not shown).

FIG. 8 describes the information flow from the point of view of a supplier utilizing the DTN tool. As described above, suppliers provide information relating to product offerings via supplier technology surveys. Suppliers access the supplier technology survey through the organization's

extranet 140 of FIG. 1. The organization's extranet enables secure supplier interaction via the Electronic supply-chain Interlock (ESI) application described above which is used in conjunction with the DTN tool and provides access capabilities such that a supplier need only have one password and deal with one administrative center.

Access to the technology surveys database is initiated when a supplier representative has new information that he would like to share with the organization (step 800), or when someone within the organization requests the information. Suppliers at system 150 may be requested by organization 102 to complete one survey entry for each technology family that they offer. Suppliers are furthermore asked to complete survey entries for technologies that are still in development and/or conception.

FIG. 8 describes how a supplier submits information to organization 102 via the technology surveys database 128. First, the supplier enters the URL for organization 102 via workstation 154 at step 802. This URL was given to the supplier representative during registration through ESI. After entering a user name and password, the supplier is allowed to access the organization's extranet 140. A replica database 128 of the technology surveys database stored in data storage device 120 is now available to the supplier at enterprise system 150. Replica database 128 may be structured to provide limited access and editing abilities to enterprise system 150. Once database 128 is accessed, the supplier is then presented with a 'view' of all previously completed survey entries by anyone from



system 150 at step 804. At this point the supplier is given the option to either view an existing entry or submit a new one at step 806.

5 To create a new entry, the supplier clicks on the "Create New" button at step 808, and a supplier letter is displayed (not shown) at step 810. The letter contains basic help information and a list of available surveys at the bottom of the page. When the supplier user clicks on the desired survey at step 812, a survey form appears with  
10 information to be filled in at step 814. The type of information requested will necessarily vary depending upon the respective technology family chosen by the supplier. A supplier has the option of attaching files to the survey form, if there is further technical information that is only  
15 contained in local files (not shown). At step 816 the supplier completes the survey form.

A supplier choosing to view or edit an existing survey entry clicks on the title of the survey in the view of all survey entries at step 818. This will present the survey in  
20 read-only mode initially, similar to the technology survey window 700 of FIG. 7 at step 820. The supplier may then either click the "Back" button on his browser to return to the list, or click the "Edit" button at step 822 to make changes or additions to the survey. This represents the  
25 existing information in a form for editing.

Each time a survey form is being edited, whether existing or new, the DTN tool sets the survey editing function to "Draft" mode at step 824. Draft mode allows a  
30 supplier to save work prior to completion, if further information needs to be gathered prior to finishing the

survey at step 826. When the supplier selects "Final", the survey is saved at step 828, and automatic notification occurs. A lookup table is available in the technology surveys database which links particular technology families with individual procurement engineers of organization 102 (not shown). Notification of a "final" saved survey is automatically sent to the appropriate procurement engineer by email for review and rating at step 830.

After saving the survey, the supplier is re-directed back to the view showing the complete list of survey entries at step 832. Whether the survey was marked draft or final, the survey response is made available to the organization's users as soon as scheduled firewall replication occurs. Suppliers have access 24 hours a day to add, update, and change their information. Since the organization's procurement engineers use the DTN tool exclusively to mark and distribute the list of preferred technologies and suppliers, suppliers are more willing to submit information through the tool. Since the information is available to all of the organization's development engineers, the supplier users also recognize the DTN tool as an efficient use of their time as a marketing tool.

FIG. 9 illustrates the flow of information from the point of view of a procurement engineer. The two main functions for procurement engineers are to (1) review the entries provided by suppliers, and provide feedback and preferredness ratings, and (2) input new technical-intelligence information into the DTN engineering notebook.

A procurement engineer reviews new supplier entries as described herein. When a supplier marks a technology survey

as "Final" and selects "Save" as described in FIG. 8, an email/notification is automatically sent to the engineer responsible for that technology family alerting him/her of the new information at 900. In the supplier comparison view of FIG. 6 that the development engineer sees, this new survey is marked "New Entry" (not shown) and is separated from the rest of the information. This informs the user that the data provided by the supplier has not yet been validated, nor has the supplier's preferredness status been marked.

The procurement engineer accesses the technology survey database in data storage device 120 through Lotus Notes (TM) at step 902 and views all of the technology survey responses at step 904. The procurement engineer then clicks on the new entry title at 906, and the selected technology survey response is displayed at step 908. The engineer reviews and edits the information at 910. There are several types of information for the procurement engineer to complete, such as feedback to the supplier, (e.g., giving opinions of the product); assessments (e.g., an engineering assessment for an organization's development engineer); preferred supplier, (e.g., whether the supplier is preferred for the family); and preferred technology family (e.g., whether the technology is preferred to other similar types). When the supplier or technology family is marked "preferred", the survey entry in the view is automatically re-categorized to alert a development engineering user of the information at step 912.

A procurement engineer may also learn of new technology from sources other than supplier surveys (step 914). In

this instance, the engineer can choose to either record the new information either directly via the engineering notebook database of the DTN tool or through local files replicated to a remote device at step 916. If the engineer is situated at workstation 114 within organization's 102 intranet 112, the direct method is typically used at step 918 whereby the new information is edited directly via the DTN tool and updates are immediately reflected in the system. If the engineer chooses to provide updates via a remote device at step 920, the changes would not be replicated to the appropriate database of organization 102. The engineer would still be required to open the engineering notebook database of the DTN tool as indicated in step 918, select the design access option at step 922, and load the appropriate updated files into the engineering notebook at step 924. The engineering notebook contains the technical intelligence for the organization's future direction in a particular technology. The structure of the engineering notebook is customizable, and typically contains the following Lotus Notes (TM) design elements: navigators, where links may be placed over a chart or picture; and free-form pages that may be updated with text, pictures, and OLE-enabled documents.

The DTN tool provides continuous access to the most complete information on product offerings and technology, enabling an organization to better understand market and technology trends, and deliver consistent information to all necessary parties. The DTN tool's subcomponents; namely, the DTN front end, engineering notebook, and technology surveys features facilitate this information delivery by

integrating dynamic product and technology data received from a variety of sources into a single, centralized system.

5 While preferred embodiments have been shown and described, various modifications and substitutions may be made thereto without departing from the spirit and scope of the invention. Accordingly, it is to be understood that the present invention has been described by way of illustration and not limitation.

What is claimed is:

1           1. A method for facilitating product development and  
2 procurement functions in a communications network  
3 environment, comprising:  
4 receiving a request from a first enterprise system to  
5 contact a web site maintained by a second enterprise system;  
6           said second enterprise system authenticating a user ID  
7 and password of a user of said first enterprise system;  
8           receiving a request to initiate an activity, said  
9 activity provided by said second enterprise system among a  
10 plurality of activity options;  
11           said second enterprise system retrieving data from at  
12 least one data storage device, said data corresponding to  
13 said activity selected; and  
14           transmitting said data to said first enterprise system;  
15           wherein said second enterprise system includes a  
16 development toolkit network tool for executing product  
17 development and procurement activities.

1           2. The method of claim 1, wherein said activity  
2 includes:  
3           replicating a database associated said second  
4 enterprise system resulting from a request to view a survey;  
5           providing access to said database;  
6           displaying a list of surveys, said surveys previously  
7 completed by said first enterprise system;  
8           retrieving one of said surveys from said database in  
9 response to a request to view said one of said surveys; and  
10          displaying said survey.

1           3. The method of claim 2, further comprising:  
2           receiving a request to select a survey type from a list  
3 of survey type options;  
4           retrieving a survey form from said database; said  
5 survey form corresponding to said survey type;  
6           transmitting said survey form to said first enterprise  
7 system;  
8           receiving response data solicited in said survey form;  
9           storing said survey form in said database; and  
10          associating said survey form with a technical  
11 representative of said second enterprise system.

1           4. The method of claim 3, further comprising:  
2           receiving an attached file with said survey form.

1           5. The method of claim 3, wherein said storing said  
2 survey form includes storing said survey form in a draft  
3 mode at said second enterprise system.

1           6. The method of claim 5, wherein said storing said  
2 survey form in said draft mode includes making available  
3 said survey form to said second enterprise system.

1           7. The method of claim 3, wherein said storing said  
2 survey form includes storing said survey form in a final  
3 mode at said second enterprise system.

1           8. The method of claim 7, wherein said storing said  
2 survey form in said final mode includes:

3           causing a notification to be transmitted to a  
4 representative of said second enterprise system; and  
5           making available said survey form to said second  
6 enterprise system.

1           9. The method of claim 3, further comprising:  
2           receiving a request to access a stored survey form from  
3 said database;  
4           retrieving said stored survey form from said database;  
5           transmitting said stored survey form to said first  
6 enterprise system, said first enterprise editing said stored  
7 survey form; and  
8           storing said survey form in said database.

1           10. The method of claim 9, wherein said editing is in  
2 a draft mode.



1           11. The method of claim 9, wherein said transmitting  
2 said survey form includes replicating said database to said  
3 second enterprise system and designating said survey form as  
4 a new entry.

1           12. The method of claim 9, wherein said storing said  
2 survey form includes storing said survey form in a final  
3 mode.

1           13. The method of claim 12, wherein said storing said  
2 survey form in said final mode causes a notification to be  
3 transmitted to a representative of said second enterprise  
4 system.

1           14. The method of claim 1, wherein said communications  
2 network environment includes an extranet.

1           15. The method of claim 1, wherein said authenticating  
2 said user ID and said password is accomplished via a  
3 firewall.

1           16. The method of claim 1, wherein said user is a  
2 supplier.

1           17. A method for facilitating product development and  
2 procurement functions in a communications network  
3 environment, comprising:  
4           receiving a notification by a remote user of an  
5 enterprise system, said notification including data relating  
6 to a supplier survey;  
7           receiving a request to access a database associated  
8 with said second enterprise system, said database storing  
9 said supplier survey;  
10          authenticating a user ID and a password of said remote  
11 user;  
12          providing access to said database;  
13          displaying said supplier survey;  
14          entering data into a remote device by said remote user;  
15 and  
16          storing said data;  
17          wherein said enterprise system includes a  
18 development toolkit network tool for executing product  
19 development and procurement activities.

1           18. The method of claim 17, wherein said receiving  
2 said notification is via an electronic mail.

1           19. The method of claim 17, wherein said database is a  
2 replica database.

1           20. The method of claim 19, wherein said replica  
2 database resides on a remote device.

1           21. The method of claim 17, wherein said entering said  
2 data includes providing feedback information to a supplier,  
3 said supplier associated with said supplier survey.

1           22. The method of claim 17, wherein said entering said  
2 data includes rating said supplier survey.

1           23. The method of claim 22, wherein said rating  
2 includes providing markings to said survey, said markings  
3 designating a preferred status.

1           24. A method for facilitating product development and  
2 procurement functions in a communications network  
3 environment, comprising:  
4           receiving a request to access a database associated  
5 with an enterprise system by a remote user;  
6           authenticating a user ID and a password of said remote  
7 user;  
8           replicating said database to a second database of said  
9 enterprise system;  
10          providing access to said second database;  
11          receiving technology information acquired by said  
12 remote user; and  
13          storing said technology information;  
14          wherein said enterprise system includes a  
15 development toolkit network tool for executing product  
16 development and procurement functions.

1           25. The method of claim 24, wherein said database  
2 resides in a remote device.

1           26. A method for facilitating product development and  
2 procurement functions in a communications network  
3 environment, comprising:  
4           receiving a request to access a database associated  
5 with an enterprise system by a remote user;  
6           authenticating a user ID and a password of said remote  
7 user;  
8           replicating said database to a second database of said  
9 enterprise system;  
10          providing access to said second database;  
11          receiving a request for a technology menu, said menu  
12 comprising at least one technology type;  
13          transmitting said technology menu via said network;  
14          receiving a request for a display of technology sub-  
15 types from said at least one technology type;  
16          receiving said display via said network wherein said  
17 technology sub-types include at least one technology family;  
18          receiving a request for data corresponding to said at  
19 least one technology family; and  
20          transmitting said data corresponding to said at least  
21 one technology family; wherein said data includes at least  
22 one technology supplier; and  
23          wherein further, said enterprise system includes a  
24 development toolkit network tool for executing product  
25 development and procurement functions.

1           27. The method of claim 26, wherein said technology  
2 menu, said technology types, and said technology sub-types  
3 are retrievable from a first database.

1           28. The method of claim 26, wherein said data  
2       corresponding to said at least one technology family is  
3       retrievable from a second database.

1           29. The method of claim 26, further comprising:  
2       receiving a request for data corresponding to said at  
3       least one technology supplier, said data including an item  
4       from said supplier technology comparison list; and  
5       transmitting a technology survey response.

1           30. The method of 29, wherein said technology survey  
2       response is rated, said survey including preferredness  
3       designations.

1           31. The method of claim 30, wherein said designations  
2       are provided by a procurement engineer of said enterprise  
3       system.

1           32. The method of 29, wherein said technology survey  
2       response is not rated.

1           33. The method of claim 26, further comprising:  
2       transmitting a hypertext link from said technology  
3       survey response, said link corresponding to a supplier's web  
4       site.

1           34. The method of claim 26, wherein said providing  
2       access to said database includes replicating said database  
3       to a second database.

1           35. The method of claim 26, wherein said request for  
2 said data is initiated by a development engineer of said  
3 second enterprise system.

1           36. The method of claim 26, wherein said  
2 communications network environment is an intranet.

1           37. A system for facilitating product development and  
2 procurement functions in a network environment, comprising:  
3           a host system including a web server, an applications  
4 server, and a database server;  
5           a first data storage device in communication with said  
6 host system;  
7           a second data storage device in communication with said  
8 host system;  
9           a development toolkit network application being  
10 executed by said host system;  
11           a firewall in communication with said host system;  
12           a workstation; and  
13           a computer network connecting the host system to the  
14 workstation;  
15           wherein information inputted into the workstation is  
16 transferred to the host system and made available to a  
17 development toolkit network application for executing  
18 product development and procurement functions.

1           38. The system of claim 37, wherein a front end  
2 database is stored in said first data storage device.

1           39. The system of claim 37, wherein an engineering  
2 notebook database is stored in said first data storage  
3 device.

1           40. The system of claim 37, wherein a technology  
2 survey database is stored in said second data storage  
3 device.

1           41. The system of claim 38, wherein said front end  
2 database is replicated to a remote network device.

1           42. The system of claim 39, wherein said engineering  
2 notebook database is replicated to a remote network device.

1           43. The system of claim 40, wherein said technology  
2 survey database is replicated to a remote network device  
3 over an extranet network connection.

1           44. The system of claim 38, wherein said front end  
2 application includes a technology selector application.

1           45. The system of claim 39, wherein said engineering  
2 notebook application includes a road maps application.

1           46. The system of claim 40, wherein said technology  
2 surveys database includes a supplier comparison application.

1           47. The system of claim 40, wherein said technology  
2 surveys database includes a supplier technology survey  
3 application.



1           48. A storage medium encoded with machine-readable  
2 computer program code for facilitating product development  
3 and procurement functions in a communications network  
4 environment, including a first enterprise system and a  
5 second enterprise system, the storage medium including  
6 instructions for causing said second enterprise system to  
7 implement a method, comprising:     a first enterprise system  
8 contacting a web site maintained by a second enterprise  
9 system;

10           said second enterprise system authenticating a user ID  
11 and password of a user of said first enterprise system;

12           said first enterprise system selecting an activity,  
13 said activity provided by said second enterprise system  
14 among a plurality of activity options;

15           said second enterprise system retrieving data from at  
16 least one data storage device, said data corresponding to  
17 said activity selected; and

18           transmitting said data to said first enterprise system;

19           wherein said second enterprise system includes a  
20 development toolkit network tool for facilitating  
21 communication between said first enterprise and said second  
22 enterprise, and wherein further, said development toolkit  
23 network tool executes product development and procurement  
24 activities.

1           49. The storage medium of claim 48, wherein said  
2 activity includes:  
3           replicating a database associated with said second  
4 enterprise system resulting from a request to view a survey;  
5           providing access to said database;  
6           displaying a list of surveys, said surveys previously  
7 completed by said first enterprise system;  
8           retrieving one of said surveys from said database in  
9 response to a request to view said one of said surveys; and  
10          displaying said survey.

1           50. The storage medium of claim 49, further comprising  
2 instructions for causing said second enterprise system to  
3 implement:

4           receiving a request to select a survey type from a list  
5 of survey type options;

6           retrieving a survey form from said database; said  
7 survey form corresponding to said survey type;

8           transmitting said survey form to said first enterprise  
9 system;

10          receiving response data solicited in said survey form;

11          storing said survey form in said database; and

12          associating said survey form with a technical  
13 representative of said second enterprise system.

14          51. The storage medium of claim 50, further comprising  
15 instructions for causing said second enterprise system to  
16 implement:

17          receiving an attached file with said survey form.

1           52. The storage medium of claim 50, wherein said  
2 storing said survey form includes storing said survey form  
3 in a draft mode at said second enterprise system.

1           53. The storage medium of claim 52, wherein said  
2 storing said survey form in said draft mode includes making  
3 said survey form available to said second enterprise system.

1           54. The storage medium of claim 50, wherein said  
2 storing said survey form includes storing said survey form  
3 in a final mode at said second enterprise system.

1           55. The storage medium of claim 54, wherein said  
2 storing said survey form in said final mode includes:  
3           causing a notification to be transmitted to a  
4 representative of said second enterprise system; and  
5           making said survey form available to said second  
6 enterprise system.

1           56. The storage medium of claim 50, further comprising  
2 instructions for causing said second enterprise system to  
3 implement:

4           receiving a request to access a stored survey form from  
5 said database;

6           retrieving said stored survey form from said database;

7           transmitting said stored survey form to said first  
8 enterprise system, said first enterprise system editing said  
9 stored survey form; and

10          storing said survey form in said database.

1           57. The storage medium of claim 56, wherein said  
2 editing is in a draft mode.

1           58. The storage medium of claim 56, wherein said  
2 transmitting said survey form includes replicating said  
3 database to said second enterprise system and designating  
4 said survey form as a new entry.

1           59. The storage medium of claim 56, wherein said  
2 storing said survey form includes storing said survey form  
3 in a final mode.

1           60. The storage medium of claim 59, wherein said  
2 storing said survey form in said final mode causes a  
3 notification to be transmitted to a representative of said  
4 second enterprise system.

1           61. The storage medium of claim 48, wherein said  
2 communications network environment includes an extranet.

1           62. The storage medium of claim 48, wherein said  
2 authenticating said user ID and said password is  
3 accomplished via a firewall.

1           63. The storage medium of claim 48, wherein said user  
2 is a supplier.

1           64. A storage medium encoded with machine-readable  
2 computer program code for facilitating product development  
3 and procurement functions in a communications network  
4 environment, the storage medium including instructions for  
5 causing an enterprise system to implement a method,  
6 comprising:  
7           receiving a notification by a remote user of an  
8 enterprise system, said notification including data relating  
9 to a supplier survey;  
10          receiving a request to access a database associated  
11 with said second enterprise system, said database storing  
12 said supplier survey;  
13          authenticating a user ID and a password of said remote  
14 user;  
15          providing access to said database;  
16          displaying said supplier survey;  
17          entering data into a remote device by said remote user;  
18 and  
19          storing said data;  
20          wherein said enterprise system includes a  
21 development toolkit network tool for executing product  
22 development and procurement activities.

1           65. The storage medium of claim 64, wherein said  
2 receiving said notification is via an electronic mail.

1           66. The storage medium of claim 64, wherein said  
2 database is a replica database.

1           67. The storage medium of claim 66, wherein said  
2 replica database resides on a remote device.

1           68. The storage medium of claim 64, wherein said  
2 entering said data includes providing feedback information  
3 to a supplier, said supplier associated with said supplier  
4 survey.

1           69. The storage medium of claim 64, wherein said  
2 entering said data includes rating said supplier survey.

1           70. The storage medium of claim 69, wherein said  
2 rating includes providing markings to said survey, said  
3 markings designating a preferred status.

1           71. A storage medium encoded with machine-readable  
2 computer program code for facilitating product development  
3 and procurement functions in a communications network  
4 environment, the storage medium including instructions for  
5 causing an enterprise system to implement a method,  
6 comprising:  
7           receiving a request to access a database associated  
8 with an enterprise system by a remote user;  
9           authenticating a user ID and a password of said remote  
10 user;  
11           replicating said database to a second database of said  
12 enterprise system;  
13           providing access to said second database;  
14           receiving technology information acquired by said  
15 remote user; and  
16           storing said technology information;  
17           wherein said enterprise system includes a  
18 development toolkit network tool for executing product  
19 development and procurement functions.

1           72. The storage medium of claim 71, wherein said  
2 database resides in a remote device.

1           73. A storage medium encoded with machine-readable  
2 computer program code for facilitating product development  
3 and procurement functions in a communications network  
4 environment, including a first enterprise system and a  
5 second enterprise system, the storage medium including  
6 instructions for causing said second enterprise system to  
7 implement a method, comprising:  
8           receiving a request to access a database associated  
9 with an enterprise system by a remote user;  
10           authenticating a user ID and a password of said remote  
11 user;  
12           replicating said database to a second database of said  
13 enterprise system;  
14           providing access to said second database;  
15           receiving a request for a technology menu, said menu  
16 comprising at least one technology type;  
17           transmitting said technology menu via said network;  
18           receiving a request for a display of technology sub-  
19 types from said at least one technology type;  
20           receiving said display via said network wherein said  
21 technology sub-types include at least one technology family;  
22           receiving a request for data corresponding to said at  
23 least one technology family; and  
24           transmitting said data corresponding to said at least  
25 one technology family; wherein said data includes at least  
26 one technology supplier; and  
27           wherein further, said enterprise system includes a  
28 development toolkit network tool for executing product  
29 development and procurement functions.



1           74. The storage medium of claim 73, wherein said  
2 technology menu, said technology types, and said technology  
3 sub-types are retrievable from a first database.

1           75. The storage medium of claim 73, wherein said data  
2 corresponding to said at least one technology family is  
3 retrievable from a second database.

1           76. The storage medium of claim 73, further comprising  
2 instructions for causing said enterprise system to  
3 implement:

4           requesting data corresponding to said at least one  
5 technology supplier, said data including an item from said  
6 supplier technology comparison list; and  
7           viewing a technology survey response.

1           77. The storage medium of claim 76 wherein said  
2 technology survey response is rated, said survey including  
3 preferredness designations.

1           78. The storage medium of claim 77 wherein said  
2 designations are provided by a procurement engineer of said  
3 second enterprise system.

1           79. The storage medium of claim 77 wherein said  
2 technology survey response is unrated.

1           80. The storage medium of claim 73, further comprising  
2 instructions for causing said enterprise system to  
3 implement:

4           providing a hypertext link from said technology survey  
5 response, said link corresponding to a supplier's web site.

1           81. The storage medium of claim 73, wherein said  
2 storing said data includes replicating databases of said  
3 network system.

1           82. The storage medium of claim 73, wherein said  
2 requesting said data and viewing said supplier survey  
3 response is initiated by a development engineer of said  
4 second enterprise system.

1           83. The storage medium of claim 73, wherein said  
2 communications network environment is an intranet.

METHOD AND SYSTEM FOR DYNAMICALLY PROVIDING MATERIALS AND  
TECHNOLOGY INFORMATION

ABSTRACT OF THE DISCLOSURE

5 An exemplary embodiment of the invention relates to a  
computer-based method and system for gathering materials and  
technology information from internal as well as external  
sources, integrating the information into a format  
accessible to disparate systems, storing the information in  
a centralized system, updating the stored information as  
10 needed, and providing continuous access to the information  
for authorized users of the system. The Development Toolkit  
Network (DTN) of the present invention is a set of  
applications designed to facilitate the gathering of  
technical information about supplier product offerings, and  
15 to disseminate that information to an organization's  
development engineers around the globe.

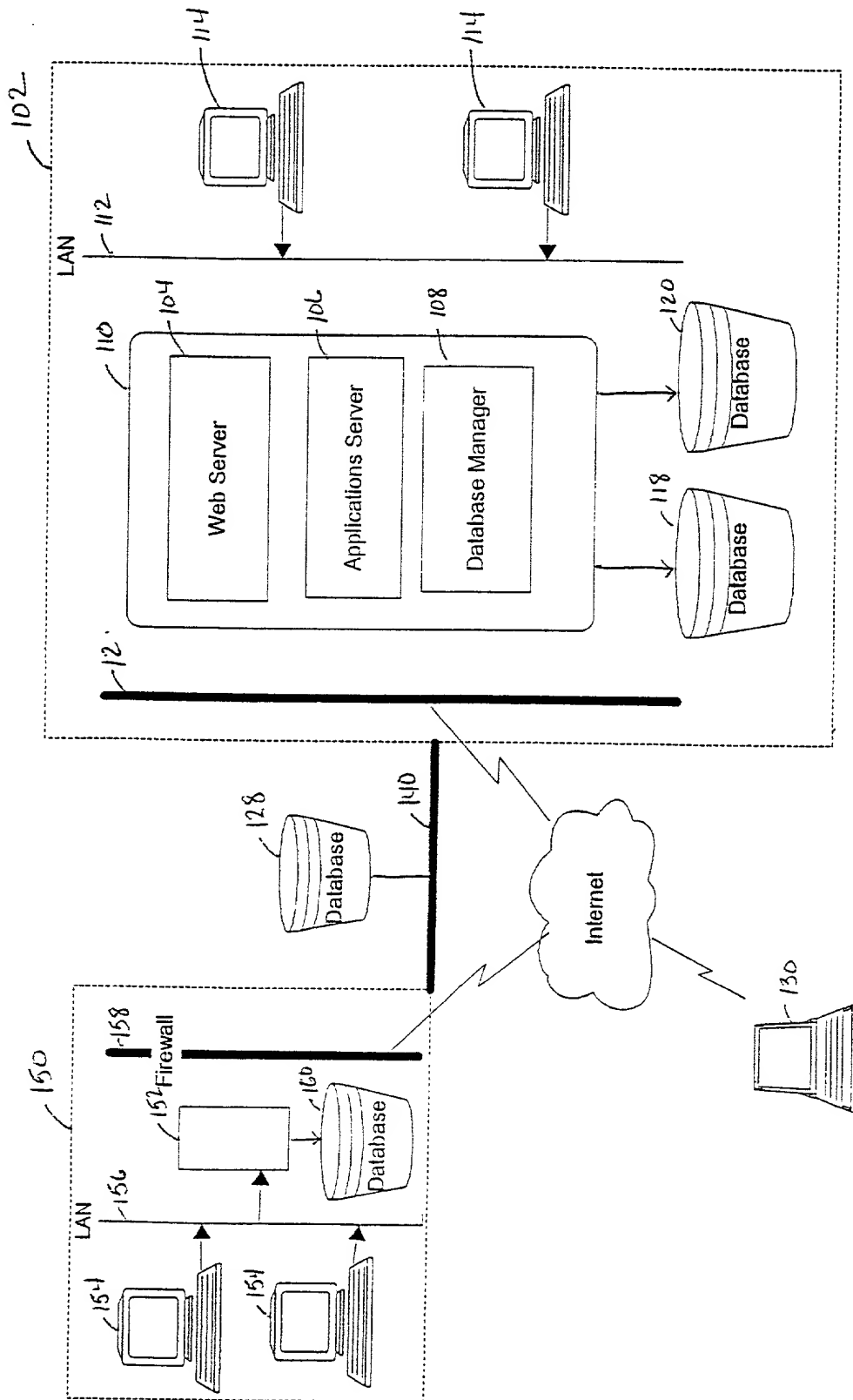


FIG. 1

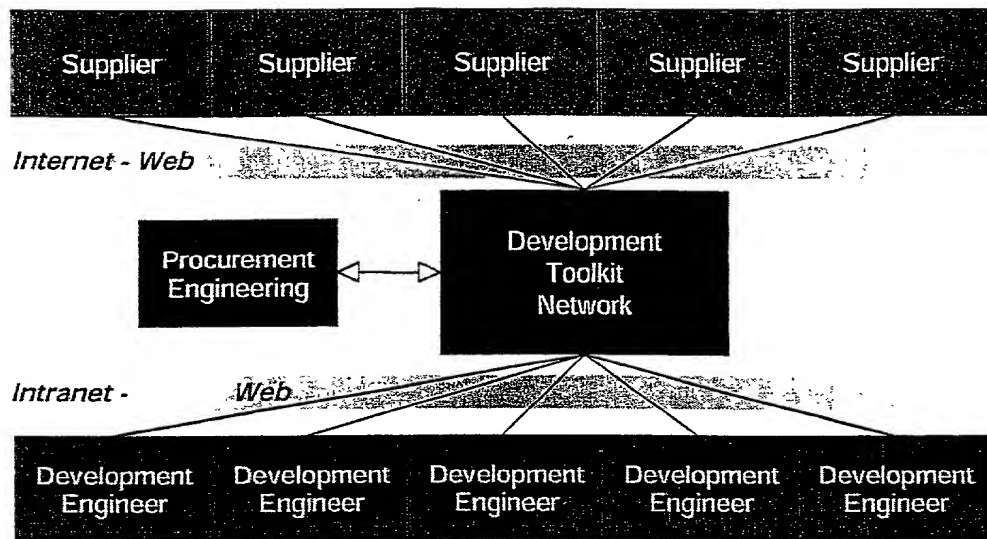


FIG. 2

## User Flow: Development Engineer

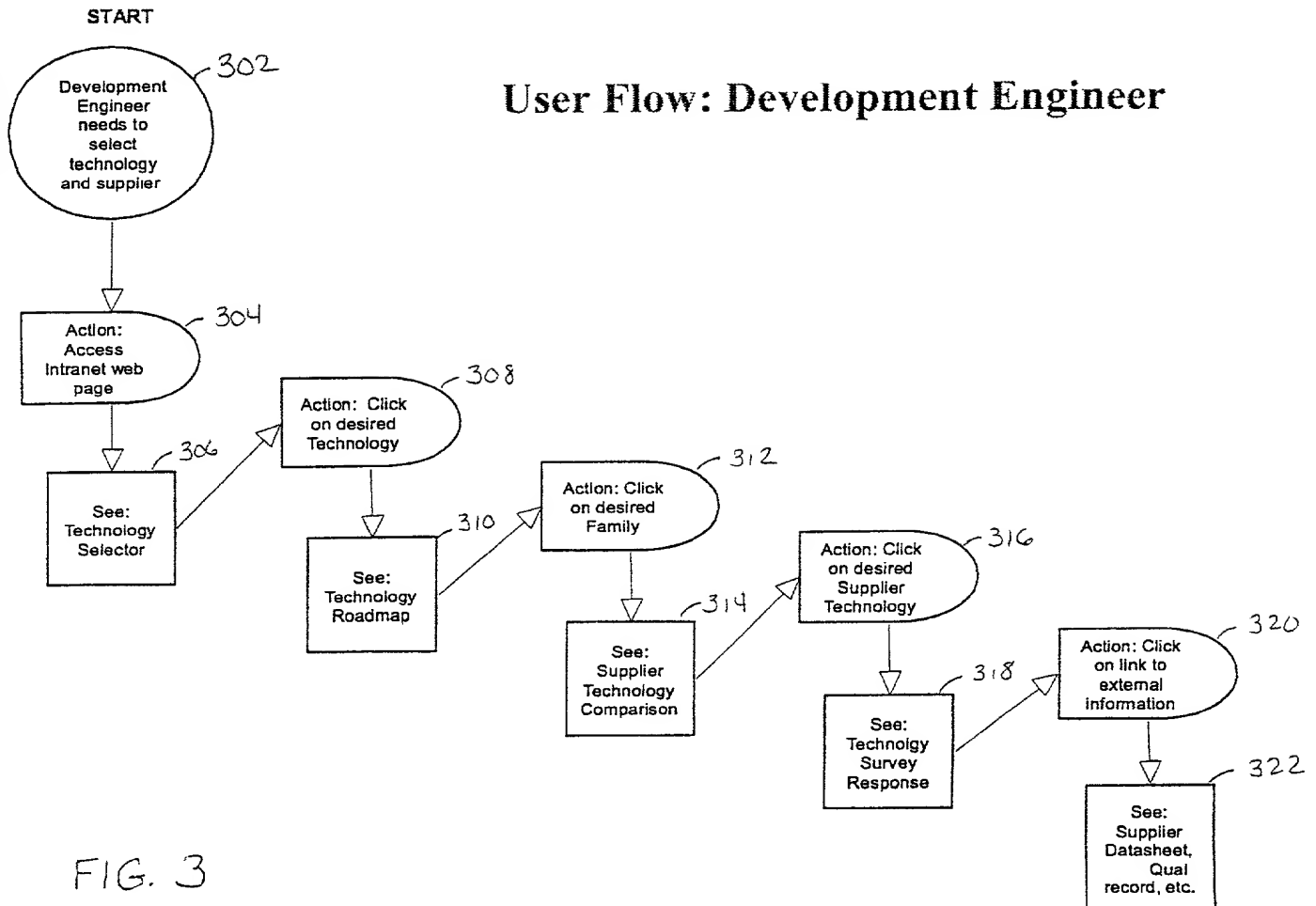
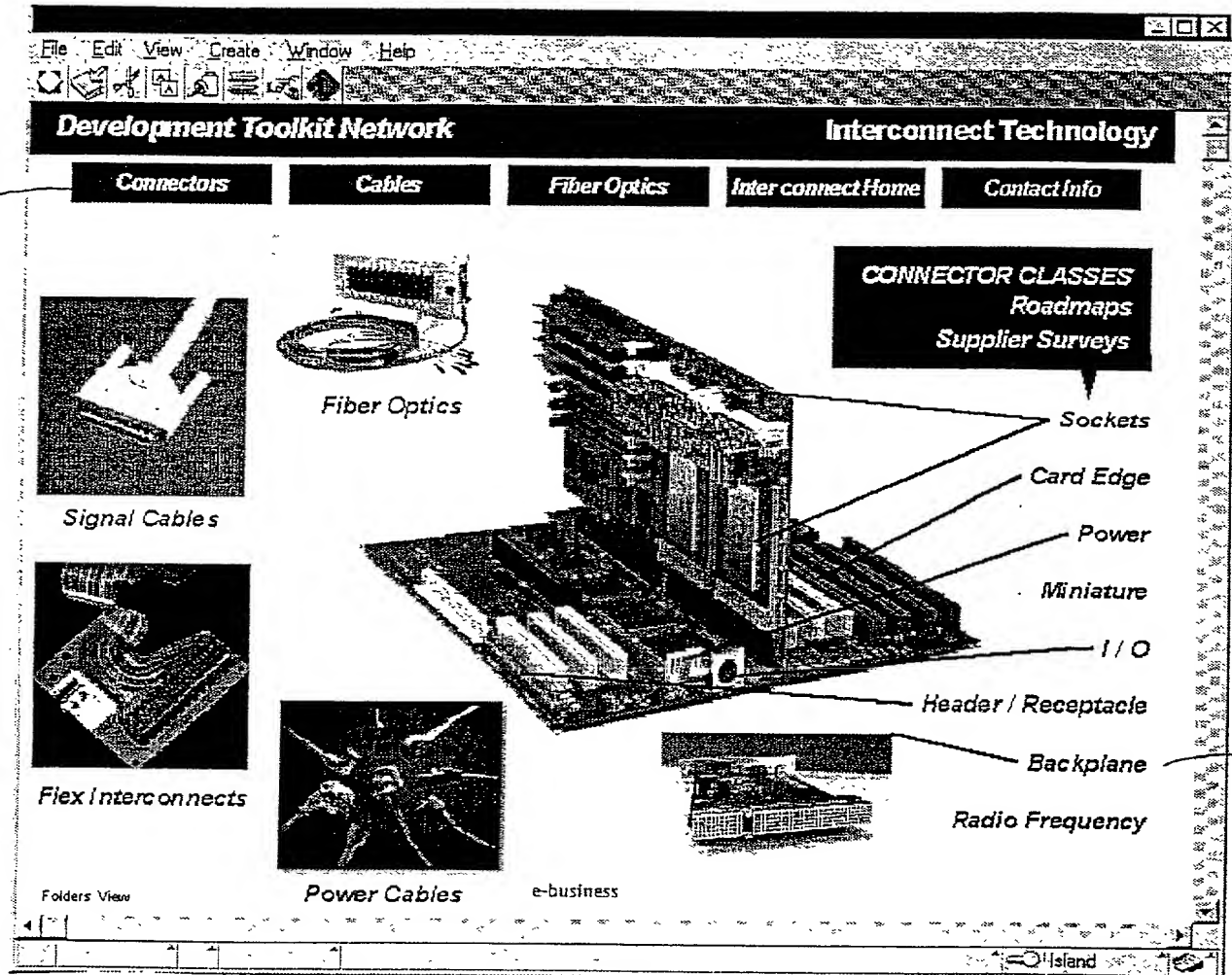


FIG. 3



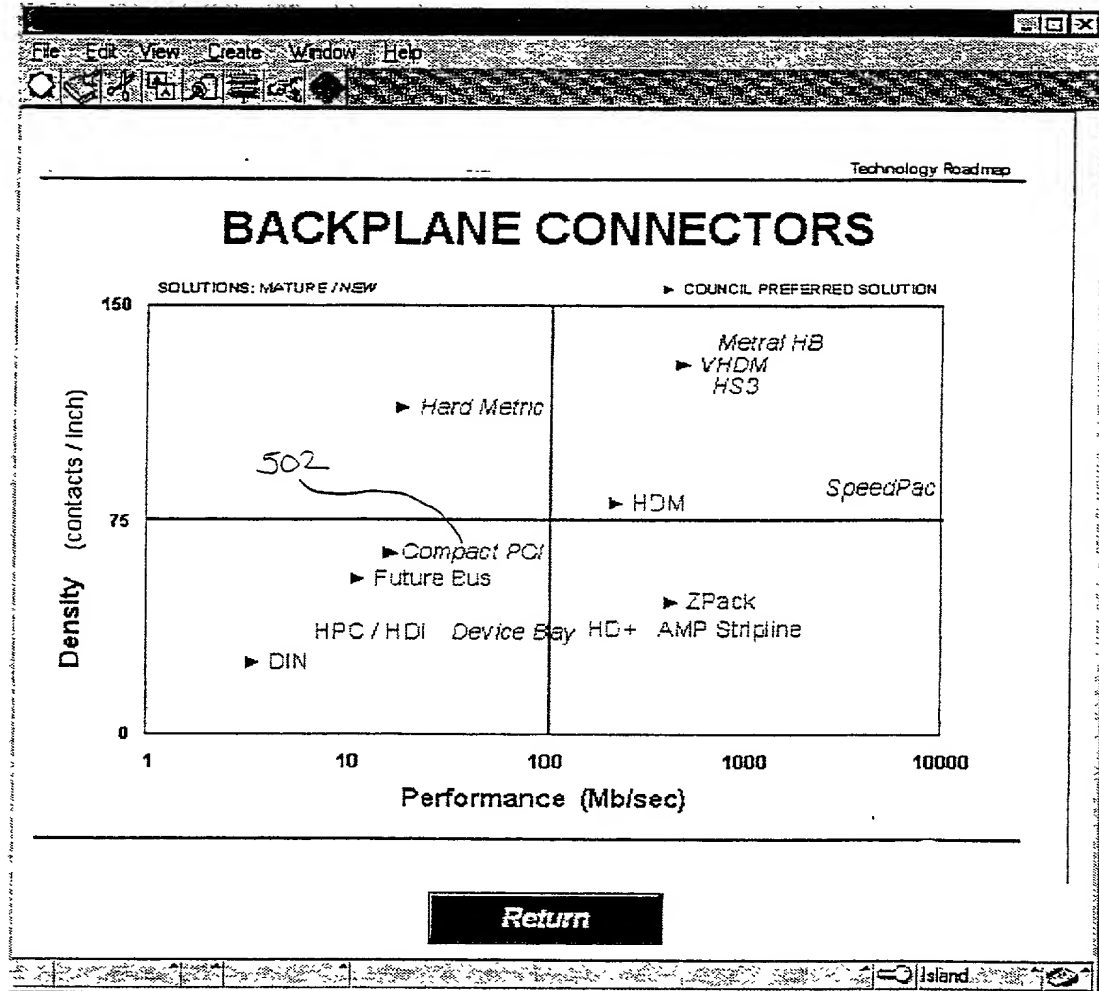


FIG. 5

DTN - Connector Classes\Backplane

File Edit View Create Actions Window Help

Back to Roadmap New Information Sheet Edit Document Exit View

DTN

- Information
- Connector Classes
  - Backplane
  - Card Edge Connect
  - Fiber Optic Connect
  - Headers / Recepta
  - I/O Connectors
  - Miniature Connector
  - Power Connectors
  - Radio Frequency C
  - Sockets
- Supplier View
- Admin
- Agents
- Design

Industry Name	Supplier	Family Name	Qualified	Xtalk
▼ Information				
Backplane	602	DIRECTION	Yes	
Backplane	LEADER		Yes	
▼ Preferred families (check = preferred supplier)				
Compact PCI		COMPACT PCI	No	0.99
Compact PCI		COMPACT PCI	No	0.99
✓ Compact PCI		COMPACT PCI	Yes	0.99
✓ CompactPCI		COMPACT PCI	Yes	9
DIN		DIN	No	0.99
✓ DIN		DIN	Yes	0.99
✓ DIN		Eurogrid	Yes	9%
✓ FutureBus		FutureBus	Yes	9%
FutureBus		FutureBus	No	10%
FutureBus		FutureBus	No	0.99
FutureBus		METCON-1	No	0.99
FutureBus		METRAL	No	0.99

Island

FIG. 6



**Technology Survey**

**Connector Technology Survey**

Supplier name

Supplier's name for this product family

Contact person

Phone number

URL for general family information

URL for qualification test report and date

Description

General comments

Description of attached files ☐  
*(attachments appear at bottom of page)*

List / describe relevant industry standards

feedback to supplier

**General Information**

Class (category)

Family name

Island

FIG. 7

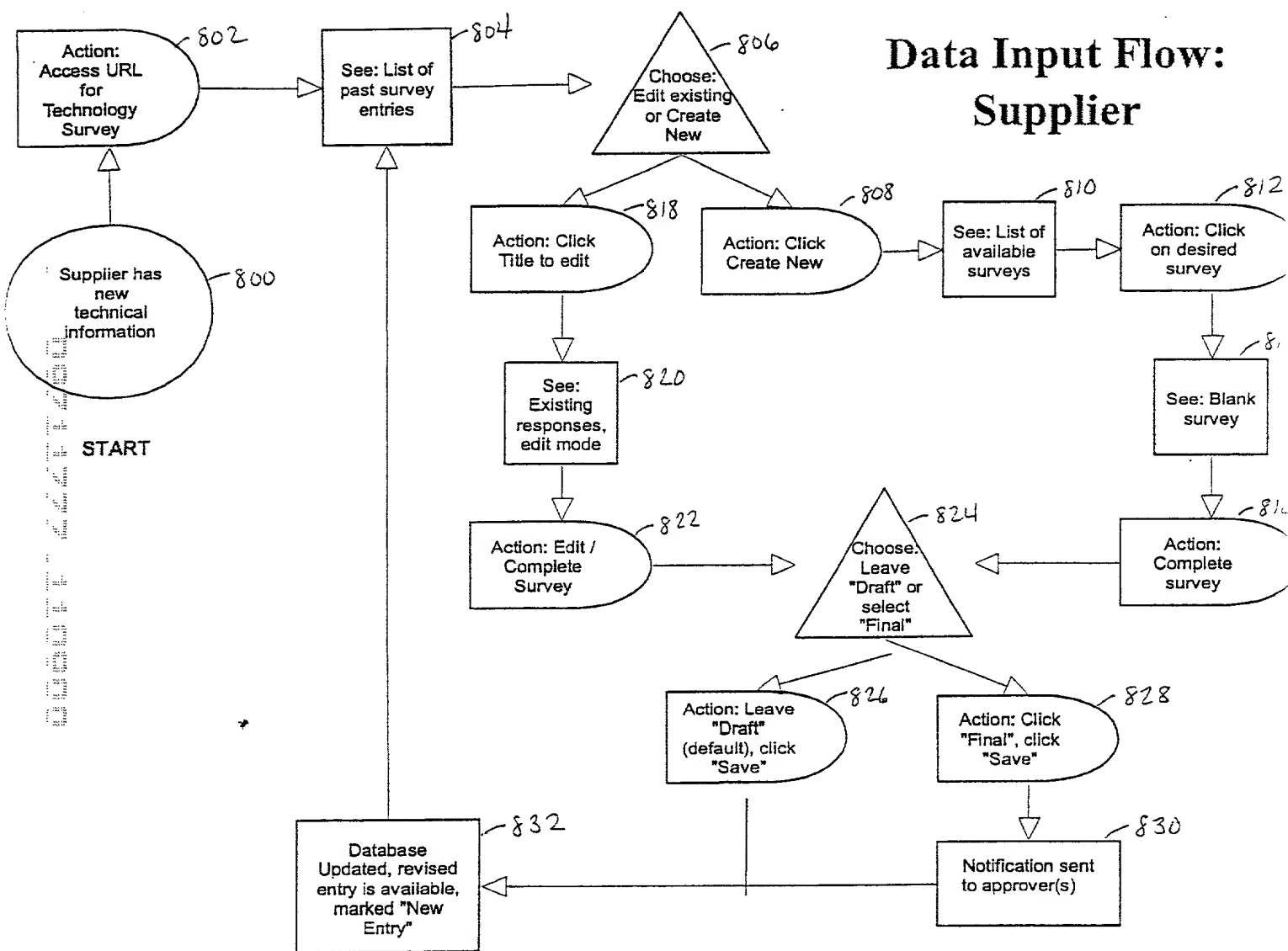


FIG. 8

## Data Input Flow: Procurement Engineer

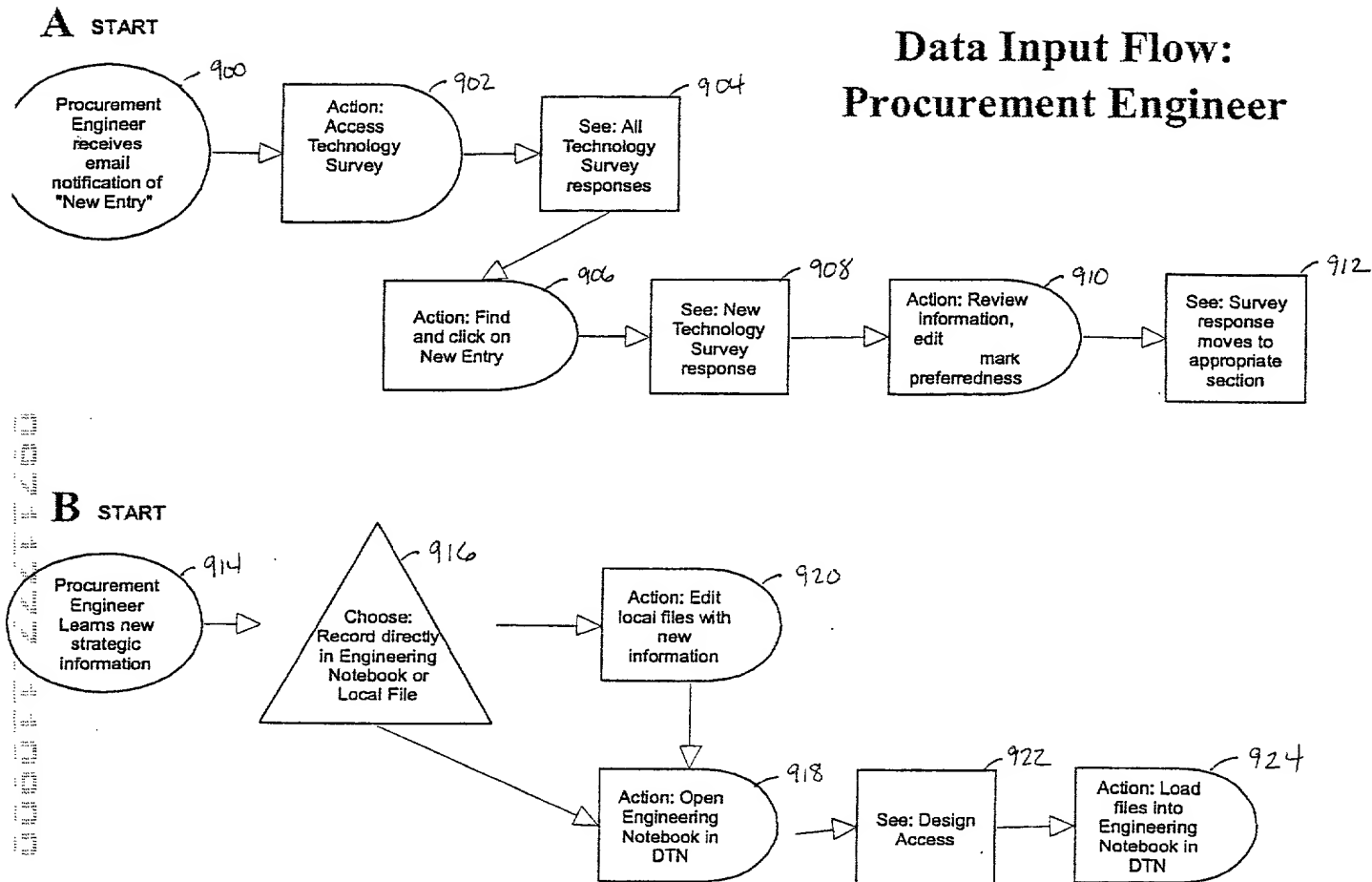


FIG 9

Docket No.  
YOR20000503US1

# Declaration and Power of Attorney For Patent Application

## English Language Declaration

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name,

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled

**Method and System for Dynamically Providing Materials and Technology Information**

the specification of which  
(check one)

☒ is attached hereto.

☐ was filed on \_\_\_\_\_ as United States Application No. or PCT International  
Application Number \_\_\_\_\_  
and was amended on \_\_\_\_\_

(if applicable)

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, Code of Federal Regulations, Section 1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, Section 119(a)-(d) or Section 365(b) of any foreign application(s) for patent or inventor's certificate, or Section 365(a) of any PCT International application which designated at least one country other than the United States, listed below and have also identified below, by checking the box, any foreign application for patent or inventor's certificate or PCT International application having a filing date before that of the application on which priority is claimed.

Prior Foreign Application(s)

Priority Not Claimed

\_\_\_\_\_  
(Number)

\_\_\_\_\_  
(Country)

\_\_\_\_\_  
(Day/Month/Year Filed)

☐

\_\_\_\_\_  
(Number)

\_\_\_\_\_  
(Country)

\_\_\_\_\_  
(Day/Month/Year Filed)

☐

\_\_\_\_\_  
(Number)

\_\_\_\_\_  
(Country)

\_\_\_\_\_  
(Day/Month/Year Filed)

☐

I hereby claim the benefit under 35 U.S.C. Section 119(e) of any United States provisional application(s) listed below:

\_\_\_\_\_  
(Application Serial No.)

\_\_\_\_\_  
(Filing Date)

\_\_\_\_\_  
(Application Serial No.)

\_\_\_\_\_  
(Filing Date)

\_\_\_\_\_  
(Application Serial No.)

\_\_\_\_\_  
(Filing Date)

I hereby claim the benefit under 35 U. S. C. Section 120 of any United States application(s), or Section 365(c) of any PCT International application designating the United States, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT International application in the manner provided by the first paragraph of 35 U.S.C. Section 112, I acknowledge the duty to disclose to the United States Patent and Trademark Office all information known to me to be material to patentability as defined in Title 37, C. F. R., Section 1.56 which became available between the filing date of the prior application and the national or PCT International filing date of this application:

\_\_\_\_\_  
(Application Serial No.)

\_\_\_\_\_  
(Filing Date)

\_\_\_\_\_  
(Status)  
(patented, pending, abandoned)

\_\_\_\_\_  
(Application Serial No.)

\_\_\_\_\_  
(Filing Date)

\_\_\_\_\_  
(Status)  
(patented, pending, abandoned)

\_\_\_\_\_  
(Application Serial No.)

\_\_\_\_\_  
(Filing Date)

\_\_\_\_\_  
(Status)  
(patented, pending, abandoned)

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

**POWER OF ATTORNEY:** As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. *(list name and registration number)*

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**POWER OF ATTORNEY:** As a named inventor, I hereby appoint the following attorney(s) and/or agent(s) to prosecute this application and transact all business in the Patent and Trademark Office connected therewith. *(list name and registration number)*

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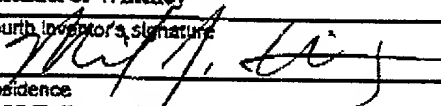
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